

An aerial photograph of a marina with many sailboats docked at a pier. The water is a clear, vibrant blue-green. The boats are mostly white with blue accents. The pier is made of light-colored concrete or stone. The overall scene is bright and clear.

Managing Fire, Spills and Other Risks at the Fuel Docks

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Fire risk at marina fuel docks may not be uncommon, but by taking precautions before, during, and after fueling, you can help prevent an incident from occurring at your marina.

Managing Fire Risk at the Marina Fuel Dock

Most watercraft run on fuel - gasoline or diesel. Even sailboats generally need a small motor to maneuver in close quarters such as navigating in and out of a marina or boatyard. The storage, handling and transfer of these fuels can be hazardous if not done carefully and safely.

In the beginning of 2021, a 28' powerboat was taking on gasoline at a marina. When the fuel dock attendant left to process the owner's credit card, the boat exploded, erupting in flames. The burning boat drifted, resulting in radiant heat damage to another much larger, 200' vessel.

Similar casualties have occurred including when a 33' boat exploded just after fueling as the operator started the engine. Another small boat caught fire when taking on fuel; broke loose and floated up to a mega yacht, causing substantial structural damage. As a result, three people were injured after an explosion and fire aboard a boat at a marina's fuel dock.

Marina fuel dock fire risk can be greatly reduced by taking appropriate actions ahead of time. Fortunately, the National Fire Protection Administration (NFPA) has set forth many applicable standards to help lower these risks. In other cases, the measures are simply good marina practice.

Here are some precautions that marina operators should consider implementing:

- Boat owners should dispense their own fuel, but only with properly trained employees providing direct supervision of them doing so. Marinas should consider positioning fuel pump power switches in a secure location, accessible only to properly trained marina employees, so that boaters do not attempt unauthorized fueling on their own.
- Boats should not be allowed to use the fuel dock as a mooring.
- There should always be an accessible Emergency Fuel Shut-Off switch near the dispensing area. Its location should be identified with a sign having at least 2" red block letters.
- The fuel dispensing area should be located far enough away from other structures and facilities to allow adequate room for safe ingress and egress of boats being fueled. Dispensing units should be at least 25 feet from any activity not associated with the handling of fuel to minimize exposure to other marina operations.
- Fuel dock supply lines should be located so they are protected from physical damage. Corrosion protection may also be required.
- Every fuel delivery nozzle should be equipped with a self-closing control valve, which will shut off the flow of fuel when the operator's hand is removed from the nozzle. The use of any automatic nozzle with a latch-open device should be prohibited.
- Pumps should be clearly marked as either "Gasoline" or "Diesel", with color coded fuel hoses and nozzles. NFPA requires 3" block lettering prominently displayed on the pump
- All hoses longer than 18' should be secured in some fashion to prevent cutting or chaffing of the fuel lines.
- In the construction of the fuel hose assembly, provisions should be made so the fuel delivery nozzle is properly bonded to the shore electric grounding facilities.
- Filling of portable tanks and/or cans on the boat or dock over the water, should be prohibited.
- Fuel pipes, pipe connections and accessories should be readily accessible.
- Fuel pipes should be adequately secured against excessive movement or vibration, protected from potential damage, and should have several piping disconnects with automatic shut-off valves in case the piping gets broken or separated.

- In case of an emergency, make sure you have an appropriate method to contact authorities with proper jurisdiction. This can be via VHS channel 16 or dialing 9-1-1.
- At every fueling station, there should be portable fire extinguishers that:
 - Meet requirements for Class “B” hazards;
 - Are installed on two sides of the fuel dispensing area; and
 - Are positioned no more than a maximum of 75-foot travel distance.
- The extinguishers should also be protected from environmental exposures that could damage the units or make them inoperable.
- The fuel dispensing area should have a spill kit sufficient enough to contain any of foreseeable spill scenarios. This will likely include a combination of spill booms to contain the spill, as well as absorbent materials to soak up the spillage.
- The following signage (per NFPA 30A 11.10.8) on fueling procedures should be posted in a prominent location at the dispensing area. It should be in 2” red letters on a white background:

Before Fueling:

- ✔ Stop all engines and auxiliaries
- ✔ Shut off all electricity, open flames, and heat sources
- ✔ Check all bilges for fuel vapors
- ✔ Extinguish all smoking materials
- ✔ Close access fittings and openings that could allow fuel vapors to enter enclosed spaces of the vessel

During Fueling:

- ✔ Maintain nozzle contact with fill pipe
- ✔ Wipe up spills immediately
- ✔ Avoid overfilling
- ✔ Fuel filling nozzle must be attended at all times

After Fueling:

- ✔ Inspect bilges for leakage and fuel odors
- ✔ Ventilate until odors are removed



Know Before You Fuel Up

Chubb’s Marine Facilities provides tips around the possible risks that can occur at marina fuel dock stations to encourage clients to take appropriate action ahead of time. Fire risk at marina fuel docks may not be uncommon, but by taking precautions before, during, and after fueling, you can help prevent an incident from occurring at your marina. Implement these tips to minimize risks when on the water and take the necessary precautions when docking to fuel or filling portable tanks to help ensure a safe time.

Click here to access the NFPA’s *Fire Protection Standard for Marinas and Boatyards*.¹

Contact Us

For more information on how Chubb can you help you maintain marina fuel dock safety and stay protected from the associated risks, contact your local agent or broker and visit www.chubb.com/us/marinefacilities.

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¹ <https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=303>



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